IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Uri MAHLAB	)	Art Unit:
IA No.: PCT/IL01/00063	)	Washington, D.C.
IA Filed: January 23, 2001	)	
U.S. App. No.: (Not Yet Assigned)	)	September 13, 2001
National Filing Date: (Not Yet Received)	)	
For: METHOD AND APPARATUS...	)	Docket No.: MAHLAB=2

PRELIMINARY AMENDMENT

Honorable Commissioner for Patents and Trademarks
Washington, D.C. 20231

Sir:

Contemporaneous with the filing of this case and prior to calculation of the filing fee, kindly amend as follows:

IN THE SPECIFICATION

After the title please insert the following paragraph:

REFERENCE TO RELATED APPLICATIONS

--The present application is the national stage under 35 U.S.C. 371 of international application PCT/IL01/00063, filed January 23, 2001 which designated the United States, and which international application was published under PCT Article 21(2) in the English language.--

In re of: Uri MAHLAB (MAHLAB=2)

IN THE CLAIMS

Cancel claims 5-12, 20-28 and 41-43 without prejudice.

REMARKS

Claims 1-4, 13-19 and 29-40 presently appear in this case. The above amendment to the specification is being made to insert reference to the PCT application of which the present case is a U.S. national stage. The above amendments to the claims are being made in order to cancel claims 5-12 and 20-28 to place this case in better condition for examination. Please enter this amendment prior to calculation of the filing fee in this case.

Favorable consideration and allowance are earnestly solicited.

Respectfully submitted,
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SUPPLEMENTAL PRELIMINARY AMENDMENT

Commissioner for Patents
Washington, D.C. 20231

Sir:

Prior to examination upon the merits, kindly amend as follows:

IN THE CLAIMS

Please cancel claims 1-4, 13-19 and 29-40 and add the following claims:

44. A method for routing optical data comprising the steps of:
transmitting optical addressing data to a first network element having routing capabilities;
assigning an appropriate optical link connecting said first network element with a second network element where the assignment is based on the optical addressing data; and
transmitting the optical data via the assigned optical link.

45. In a telecommunication system, a method for routing optical data signals using one or more optical addressing links for carrying optical addressing signals, wherein a combination of said optical addressing signals provides addressing information required for establishing an address for routing the optical data signals and wherein said optical data signals are transmitted via an optical data link.

46. In a telecommunication system, a method for routing optical data signals, which method comprises:
generating first optical addressing signals by converting signals identifying a destination address into corresponding optical addressing signals;
transmitting said optical addressing signals over one or more optical addressing links to a first router; and
subsequently transmitting said optical data signals to said first router via an optical data link.

47. A method according to claim 46, further comprising the steps of:
generating second optical addressing signals associated with the next section of a transmission path extending from said first router towards said destination address;
transmitting the second optical addressing signals over one or more optical addressing links extending between said first router and a second router;
transmitting said optical data signals to said second router via an optical data link extending between said first router and said second router; and
repeating steps (d) to (f) until said optical data signals are transmitted to said destination address via subsequent routers

located along a transmission path extending towards said destination address.

48. A method according to claim 45, wherein the information extracted from at least one of the optical addressing signals transmitted at one of two binary illumination states.

49. A method according to claim 45, wherein at least one of the optical addressing signals is transmitted at a certain illumination level whereas at least one other optical addressing signal is presented by absence of illumination.

50. A method according to claim 45, wherein at least two of the optical addressing signals are transmitted each at substantially the same wavelength and at a different illumination intensity and wherein each of the illumination intensities corresponds to a different addressing information.

51. A method according to claim 45, wherein at least two of the optical addressing signals are transmitted each at substantially the same intensity and at a different wavelength, and wherein each of the different wavelengths corresponds to a different addressing information.

52. A method according to claim 50, wherein an optical address is derived from a combination of at least two optical addressing signals each transmitted at a different wavelength and at a different intensity from the other.

53. A method according to claim 46, wherein the transmission of at least one of the optical data signals is delayed until the following steps are performed:
decoding said optical addressing signals;
deriving addressing information from the decoded optical addressing signals; and
if required, generating another, or using said, optical routing address for further routing of said optical data signals.

54. A method according to claim 53, wherein the transmission of said at least one of the optical data signals is delayed by allowing said at least one of the optical data signals to pass through an optic fiber of a length corresponding to a desired delay in the transmission.

55. In a telecommunication system, a method for routing optical data signals, which method comprises:
generating first optical addressing signals by converting the signals identifying a destination address into corresponding optical addressing signals;
assigning optical addressing links towards said destination address based on said first optical addressing signals;
establishing a data transmission path between a transmission source transmitting said optical addressing signals over one or more and a destination for the transmission of the optical data signals;
transmitting to said transmission source an indication that said optical data signals can be forwarded towards their destination;
receiving said indication at said transmission source; and
transmitting said optical data signals towards said destination along said data transmission path.

56. A method according to claim 55, wherein said indication serves as an acknowledgement in a communication signaling process.

57. A method according to claim 55, wherein said first optical addressing signals are transmitted along a first path and at least one part of said first path extends in a network different than a network in which said optical data signals are transmitted to their destination.

58. A method according to claim 55, wherein said indication is transmitted along a second path and at least one part of said second path extends in a network different than a network in which said optical data signals are transmitted to their destination.

59. A method according to claim 57, wherein said at least one part of said first path extends in a network being a member of the group comprising: MPLS, MPλS, IP, ATM and SS7.

60. A method according to claim 58, wherein said at least one part of said second path extends in a network being a member of the group comprising: MPLS, MPλS, IP, ATM and SS7.

61. A method according to claim 55, wherein step (f) is delayed until step (e) is completed.

62. A method according to claim 58, wherein the indication is transmitted along a path different then said data transmission path.

63. A method according to claim 55, wherein the indication is an optical indication signal.

64. A method according to claim 55, wherein the indication is an electric indication signal.

65. Apparatus for routing optical data signals using one or more optical addressing links for carrying optical addressing signals, the combination of which provides addressing information required for establishing an address for routing the optical data signals that are transmitted via an optical data link.

66. Apparatus for routing optical data signals, said apparatus comprises:
means for generating first optical addressing signals by converting signals identifying a destination address into corresponding optical addressing signals;
means for transmitting said optical addressing signals over one or more optical addressing links to a first router; and
means for transmitting said optical data signals to said first router via an optical data link.

67. Apparatus according to claim 65, in which at least one of the optical addressing signal is transmitted at a certain illumination level and at least another optical addressing signal is presented by absence of illumination.

68. Apparatus according to claim 65, in which at least two of the optical addressing signals are transmitted at substantially similar wavelength and at a different

illumination intensity, and each of the illumination intensities corresponds to a different addressing information.

69. Apparatus according to claim 65, wherein at least two of the optical addressing signals are transmitted at a different wavelength, and each of the different wavelengths corresponds to a different addressing information.

70. Apparatus according to Claim 69, wherein said at least two of the optical addressing signals are transmitted at substantially similar intensity.

71. Apparatus according to claim 65, in which at least two of the optical addressing signals are transmitted each at a wavelength and intensity that are different from the wavelength and intensity of the other one of said at least two of the optical addressing signals.

72. Apparatus according to claim 65, further comprising:
means for delaying optical data signals;
means for decoding said optical addressing data;
means for deriving addressing information from the decoded optical addressing signals; and
means for generating optical routing address for further routing of optical data signals.

73. Apparatus according to claim 72, comprising an optic fiber for delaying the transmission of at least one of the optical data signals and means for directing said at least one of the optical data signals to pass through said optic fiber.

74. Apparatus for routing optical data signals, comprising:
circuitry for converting received optical addressing signals into routing signals;
a memory for storing predetermined and/or updated routing signals;
circuitry for comparing the routing signals with addressing data stored in the memory; and
circuitry for directing the incoming optical data signals to the corresponding outgoing optical data link by controlling the optical connection between incoming and outgoing optical paths according to the results of the comparison.

75. A telecommunication system comprising one or more optical addressing links for carrying a combination of optical addressing signals to the router, the combination provides addressing information required for establishing an address for routing the optical data signals.

76. A telecommunication system comprising:
a) means for generating first optical addressing signals by converting signals identifying a destination address into corresponding optical addressing signals;
b) means for transmitting said optical addressing signals over one or more optical addressing links towards said destination address;
c) a data transmission path extending between a transmission source and a destination for the transmission of the optical data signals;
d) means for transmitting to said transmission source an indication that said optical data signals can be forwarded towards their destination;

c) means for receiving said indication; and
f) means for transmitting said optical data signals responsive to receiving said indication, towards said destination along said data transmission path.

77. A system according to claim 76, wherein the indication is an optical indication signal.

78. A system according to claim 76, in which the optical indication signal is transmitted to the transmission source via the data transmission path.

79. A system according to claim 76, in which the indication is an electric indication signal.

80. Apparatus for generating optical addressing signals for routing optical data signals adapted to be transmitted via an optical data link, comprising:
one or more controllable light sources; and
a control circuitry for causing each of said controllable light sources to emit light, of a wavelength and/or of illumination intensity, according to an electrical addressing signal that corresponds to a specific address element.

81. Apparatus according to claim 80, further comprising:
one or more optical links, each of which is associated with said one or more controllable light sources, for optically transmitting one or more optical address signals in parallel with, or prior to, the routed optical data signals.

82. Apparatus for transmitting optical data signals, comprising:

a) means for generating optical addressing signals by converting signals identifying a destination address into corresponding optical addressing signals;
b) means for transmitting said optical addressing signals over one or more optical addressing links towards said destination address; and
c) means for transmitting said optical data signals towards said destination.

83. An apparatus according to Claim 82, further comprising means for receiving an indication that said optical data signals can be forwarded towards their destination, wherein said means for transmitting said optical data signals is adapted to transmit the optical data signals towards said destination responsive to receiving said indication.

84. Apparatus according to claim 43, operatively associated with at least one link that is a member of the group comprising: a link in a MPLS network, a link in a MPAS network, a link in an ATM network and a link in an SS7 network, which link is adapted to receive said indication.

85. Apparatus for routing optical data signals, comprising:
means for receiving optical addressing signals;
circuitry for converting received optical addressing signals into routing signals;
a memory for storing predetermined and/or updated routing signals;
circuitry for comparing the routing signals with addressing data stored in the memory; and

means for generating optical addressing signals corresponding to said optical data signals' destination address;
f) means for transmitting said optical addressing signals over one or more optical addressing links towards said destination address; and
g) circuitry for directing the incoming optical data signals to the corresponding outgoing optical data link by controlling the optical connection between incoming and outgoing optical paths according to the results of the comparison.

86. A telecommunication routing apparatus comprising:
a) means for receiving first optical addressing signals;
b) means for generating second optical addressing signals associated with the next section of a transmission path extending towards the destination address;
c) means for transmitting the second optical addressing signals over one or more optical addressing links extending towards the destination address;
d) means for receiving the optical data signals; and
e) means for transmitting the optical data signals received towards the destination address.

REMARKS

Claims 44-86 presently appear in this case. The above amendments to the claims are being made in order to place this application in better condition for examination.

Favorable consideration is earnestly solicited.

Respectfully submitted,

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